

AMENDMENTS TO THE CLAIMS

This Listing of Claims will replace all prior versions and listings of claims in this application.

Listing of Claims:

1. (Canceled).

2. (Currently Amended): A magnetic substance-encapsulated particle,

which comprises an organic polymer material and a magnetic substance having an average particle size of 1 to 30 nm, the magnetic substance being ~~contained~~ dispersed and encapsulated within the organic polymer material of said a particle ~~in a state of being dispersed;~~ wherein said organic polymer material comprises a monomer not having a hydrophilic group for forming a core of said particle and a monomer having a hydrophilic group for forming a shell of said particle and forming a particle having dispersion stability in water; and

wherein an absolute deviation of a component ratio between a carbon element ~~composing~~ comprising the organic polymer material and a metal element ~~composing~~ comprising the magnetic substance is 0.27 or less.

3. (Previously Presented): The magnetic substance-encapsulated particle according to claim 2,

wherein the magnetic substance is formed by oxidization of a metal ion within a particle in a polymerization process of forming the magnetic substance-encapsulated particle.

4. (Original): The magnetic substance-encapsulated particle according to claim 3, wherein the metal ion is an iron ion.
5. (Previously Presented): The magnetic substance-encapsulated particle according to claim 2, wherein a main constituent of the organic polymer material is a polymer comprising an acrylic monomer.
6. (Original): The magnetic substance-encapsulated particle according to claim 5, wherein the acrylic monomer is a monomer having a glycidyl group.
7. (Previously Presented): The magnetic substance-encapsulated particle according to claim 2, wherein a main constituent of the organic polymer material is a polymer comprising a monomer having a glycidyl group and a styrenic monomer.
8. (Original): The magnetic substance-encapsulated particle according to claim 7, wherein the proportion of a monomer unit derived from the styrenic monomer in the organic polymer material is 5 to 90% by weight.
9. (Canceled)
10. (Previously Presented): The magnetic substance-encapsulated particle according to claim 2, wherein the organic polymer material is crosslinked.
11. (Previously Presented): The magnetic substance-encapsulated particle according to claim 2, which has at least a functional group selected from the group consisting of a carboxyl group, a hydroxyl group, an epoxy group, an amino group, a triethylammonium group, a dimethylamino group and a sulfonic acid group at the surface of the particle.

12. (Previously Presented): The magnetic substance-encapsulated particle according to claim 2, wherein an average particle size is 0.05 to 1 μm .

13. (Previously Presented): The magnetic substance-encapsulated particle according to claim 2, wherein a content of the magnetic substance is 0.1 to 50% by weight.

14. (Previously Presented): The magnetic substance-encapsulated particle according to claim 2, wherein an average particle size of the magnetic substance is 2 to 10 nm.

15. (Previously Presented): The magnetic substance-encapsulated particle according to claim 2, wherein a linker having a functional group capable of forming a covalent bond with an antigen or an antibody binds to a particle surface.

16. (Original): The magnetic substance-encapsulated particle according to claim 15, wherein the functional group capable of forming a covalent bond with an antigen or an antibody is an epoxy group.

17. (Previously Presented): The magnetic substance-encapsulated particle according to claim 15, wherein the linker is polyethylene glycol diglycidyl ether.

18. (Withdrawn): A method of producing a magnetic substance-encapsulated particle according to claim 2 comprising the steps of:

polymerizing a monomer not having a hydrophilic group and/or a monomer having a hydrophilic group in a water solvent to form a particle; and

oxidizing a metal ion while taking in the metal ion into the particle to form a magnetic substance,

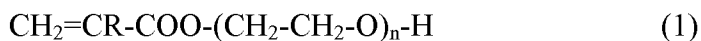
the step of forming a particle and the step of forming a magnetic substance being simultaneously performed.

19. (Withdrawn): The method of producing the magnetic substance-encapsulated particle according to claim 18,

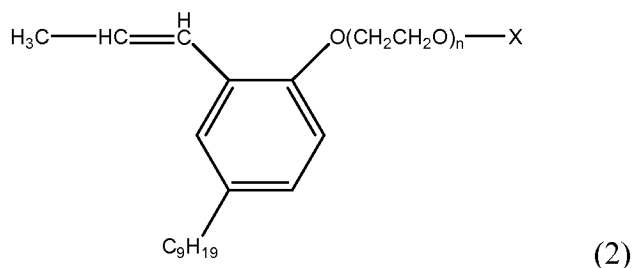
wherein the monomer not having a hydrophilic group is an acrylic monomer having a glycidyl group, or an acrylic monomer having a glycidyl group and a styrenic monomer.

20. (Withdrawn): The method of producing the magnetic substance-encapsulated particle according to claim 18,

wherein a monomer to form a particle comprises a monomer not having a hydrophilic group and a monomer having a hydrophilic group, and the monomer having a hydrophilic group is polyethylene glycol (meth)acrylate represented by the following general formula (1) or a compound represented by the following general formula (2):



in the formula, R represents H or CH₃, and n represents an integer of 1 to 20,



in the formula, X represents H or SO₃⁻NH₄⁺, and n represents an integer of 3 to 30.

21. (Withdrawn): The method of producing the magnetic substance-encapsulated particle according to claim 18,

wherein in the step of forming a particle, a reactive emulsifier is added as a copolymerization monomer.

22. (Withdrawn): The method of producing the magnetic substance-encapsulated particle according to claim 18,

wherein in the step of forming a particle, a polymerization initiator is added afterward.

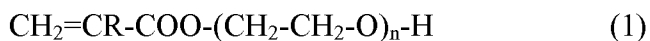
23. (Withdrawn): A particle for immunoassay, which is obtainable by adsorbing or binding an antigen or an antibody to the magnetic substance-encapsulated particle according to claim 1.

24. (Withdrawn): A method of immunoassay, wherein the magnetic substance-encapsulated particle according to claim 1 is used.

25. (Withdrawn): A method of immunoassay, wherein the magnetic substance-encapsulated particle according to claim 1, is used as a marker.

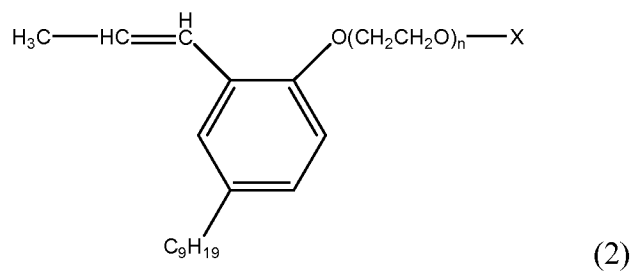
26. (Withdrawn): The method of immunoassay according to claim 24, wherein an immuno chromatogram method is used.

27. (Currently Amended): The magnetic substance-encapsulated particle according to claim 5, which further has polyethylene glycol (meth)acrylate represented by the following general formula (1)



wherein R represents H or CH₃, and n represents an integer of 1 to 20, as a monomer component of a polymer ~~composing~~ comprising the organic polymer material.

28. (Currently Amended): The magnetic substance-encapsulated particle according to claim 5, which further has a compound represented by the following general formula (2)



wherein X represents H or $\text{SO}_3^-\text{NH}_4^+$, and n represents an integer of 3 to 30, as a monomer component of a polymer ~~composing~~ comprising the organic polymer.